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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,873	08/27/2001	Kenneth L. Levy	P0421	5105

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DIGIMARC CORPORATION
9405 SW GEMINI DRIVE
BEAVERTON, OR 97008

EXAMINER	
CHOOBIN, BARRY	
ART UNIT	**PAPER NUMBER**
2625	

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/940,873	LEVY, KENNETH L.	
	Examiner	Art Unit	
	Barry Choobin	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-20 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 27 August 2001 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Carson et al (US 6,469,969).

As to claim 1, Carson et al disclose a method comprising the steps of: altering the pit-pattern of a visual design to embed a digital watermark therein (column 2, lines 31-62, column 3, lines 5-9, column 7, lines 50-52 and column 13, lines 57-61 wherein the field of the invention is optical disc data storage device such as CD and DVD corresponding to Physical media, pits or land location can be adjusted sufficiently to be visibly differentiate able to provide hidden data for anti piracy purposes and the like); and applying the embedded visual design to physical media (column 9, lines 63-66 wherein Carson applies human readable watermarks to the recording surface of the replicated disc).

As to claim 2, Carson et al disclose the method according to claim 1 (see claim 1 above) wherein the physical media comprises one of at least a SACD, CD, DVD, laser disc, mini-disc, and CD2 (column 4, lines 29-42 wherein DVD mastering is discussed corresponds to at least one of the physical media required by the claim).

As to claim 3, Carson et al disclose the method according to claim 1 (see claim 1, above), wherein said applying step comprises pit signal processing (fig.2 and fig. 3).

As to claim 4, Carson et al disclose the method according to claim 1 (see claim1 above), wherein the digital watermark is imperceptible in comparison to the visual design (column 2, lines 56-62 wherein hidden data corresponds to imperceptible).

As to claim 5, Carson et al disclose the method according to claim 2 (see claim 2 above), wherein the visual design comprises a visual watermark (column 9, lines 63-65 wherein human readable watermarks to the recording surface of the replica discs discussed).

As to claim 6, Carson et al disclose media including a plurality of pits (CD or DVD and the replica corresponds to the physical media and pits and lands on the surface corresponds to plurality of pits. See column 6, lines 51-62), said media comprising: a visual design formed by the plurality of pits (column 2, lines 35-37 wherein pits and lands on optical disc corresponds to a visual design formed by the plurality of pits); and

a digital watermark embedded within the visual design (column 14, line 65 through column 15, line 8 wherein watermark is embedded on optical disc).

As to claim 7, Carson et al disclose the media according to claim 6 (see claim 6 above), wherein the media comprises on of at least a SACD, CD, DVD, laser disc, mini disc and CD2 (column 4, lines 29-42 wherein DVD mastering is discussed corresponds to at least one of the physical media required by the claim).

As to claim 8, Carson et al disclose Carson et al disclose the media according to claim 6 (see claim 6 above), wherein the digital watermark is embedded by varying pit locations of a subset of the plurality of pits (column 2, lines 35-62 wherein pits and lands on optical disc are adjusted and the selective placement of pit and land transitions can be further used to embed a second data set to provide watermarks or anti piracy hidden codes).

As to claim 9, Carson et al disclose the media according to claim 6 (see claim 6, above), wherein the visual design comprises a visible watermark (column 9, lines 63-65 wherein human readable watermarks to the recording surface of the replica discs discussed).

As to claim 10, Carson et al disclose the media according to claim 9 (see claim 9, above), further comprising a watermark embedded within data stored on the media

(column 2, lines 53-62 wherein both first set of data or primary data and the second set of data or watermarks are stored, column 12, lines 36-42 and column 13, line 65 through column 14, line 16 wherein the embedding of either watermark or hidden data using the circuit 340 results in no significant degradation in read back quality of the primary data. Inherently, when Carson et al disclose that the embedding does not result in significant degradation, therefore embedded watermarks are within data stored in the media).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carson et al in view of Kalker et al (US 2004/0169595).

As to claim 11, Carson et al disclose a method of verifying the authenticity of media, wherein authentic media comprises a digital watermark embedded in a visual design formed by pits in the media (column 14, lines 17-37 wherein a read back operation which indicates of the embedded data),

said method comprising:

presenting the media to a watermark detector (the read back operation, decoding and detection of unauthorized duplication corresponds to detecting the watermark. Refer for example to column 14, lines 17-37).

Carson et al does not expressly disclose when a watermark is found, linking to content related to the media through information carried by the watermark.

Kalker et al disclose a method for encoding a stream of bits of a binary source signal into a stream of bits of binary channel signal comprising when a watermark is found, linking to content related to the media through information carried by the watermark (paragraph 0068).

Kalker et al and Carson et al are combinable because they are from the same field of endeavor of copy protection of media such as CD.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Carson et al with method of Kalker et al comprising linking the watermark to the content data of the media such as a CD in order to protect the data (see paragraph 0068 of Kalker et al).

The suggestion/motivation for doing so would have been to the secure copy protection.

Therefore, it would have been obvious to combine Kalker et al with Carson et al to obtain the invention as specified in claim 11.

As to claim 12, Kalker et al disclose authenticating the media by successfully completing said linking step (inherently the step above of linking the watermark to the data must be successfully complete in order to authenticate the media).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carson et al in view of Kalker et al as applied to claim 11 above, and further in view of Bahns et al (US 5,607,188).

As to claim 13, the method according to claim 11 (see claim 11, above).

Carson et al and Kalker et al do not expressly disclose that the media comprises a digital watermark embedded on a non-data side of the media, and wherein said method comprises the step of detecting the digital watermark on the non-data media side.

Bahns et al disclose a techniques for marking of optical disc for customized identification comprising; applying a watermark over the unused back side of a single sided disc (column 5, lines 58-67) and further the detection is discussed in column 6, lines 1-8).

Bahns et al is combinable with Carson et al and Kalker et al because they are from same field of endeavor of anti piracy protection for media such as CD.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Carson et al and Kalker et al with the technique as thought by Bahns et al in order to reduce the interference between the watermark and the readout laser interpretation of pits and lands (column 5, lines 50-57).

The suggestion/motivation for doing so would have been to reduce the interference between the watermark and the readout laser interpretation of pits and lands (column 5, lines 50-57).

Therefore, it would have been obvious to combine the Bahns et al with Carson et al and Kalker et al to obtain the invention as specified in claim 13.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 15-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Kondo (US 6,363,043).

As to claim 15, Kondo discloses a method to identify physical media comprising the steps of (column 1, line 66 through column 2, line 4 wherein a recording medium after inspection is identified based on a result):

analyzing an visual pattern on the physical media (column 4, lines 10-32 wherein first image "A" and second image "B" on surface of the disc are used for judgment); and identifying the physical media through said analyzing step (the true-false judgment information corresponds to identifying the media in this case a disc. See Fig.4).

As to claim 16, Kondo discloses the method according to claim 15 (see claim 15), wherein said analyzing step comprises at least one of pattern recognition, hashing and fingerprinting (column 1, lines 40-55 wherein information are selected from a plurality of patterns for true or false judgment, in this case the information are pit or groove pattern formed on the surface).

As to claim 17, Kondo discloses the method according to claim 16 (see claim 16 above) wherein said analyzing step determines a value corresponding to the visual pattern and the value is used in said identifying step to identify the physical media (column 5, lines 9-27 and fig.5, wherein in step S6, the RAM 12 increments a count value of the identified pattern).

As to claim 18, Kondo discloses the method according to claim 17 (see claim 17 above), wherein the value is used to index database-comprising information related to

the physical media (column 7, lines 50-65 wherein information are compared with the image pattern stored in the ROM 11, corresponds to using the value to index a database).

As to claim 19, Kondo discloses the method according to claim 17 (see claim 17, above), wherein the physical media comprises at least one of a SACD, CD, DVD, laser disc, mini-disc and CD2 (column 1, lines 12-14, wherein the invention relates to disk like recording media, such as CD).

As to claim 20, Kondo discloses the method according to claim 19 (see claim 19, above) wherein the visual pattern comprises a pattern of pits on a data side of the physical media (column 1, lines 40-55 wherein information are selected from a plurality of patterns for true or false judgment, in this case the information are pit or groove pattern formed on the surface).

Double Patenting

9. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

10. Claims 1-10 and 15-20 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 8-17 and 25-30 of copending Application No. 09/960,228. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

As to claims 1-7, in instant application claims 1-7 are identical word by word to claims 8-14 of copending application.

As to claim 8, in instant application claim calls for the digital watermark is embedded by varying pit locations of subset of plurality of pits. And, in copending application corresponding claim 15 calls for varying pit locations of a subset of the plurality of pits embeds the digital watermark. Although the arrangement of wording in copending application is not the same as the arrangement of wording of the instant application. However, both claims 8 and 15 are claiming the same invention.

As to claims 9, in instant application claim 9 is identical word by word to claim 16 of copending application.

As to claim 10, in instant application claim 10 is identical word by word to claim 17 of copending application.

As to claim 15, in instant application claim 15 is identical word by word to claim 25 of copending application.

As to claim 16, in instant application claim 16 is identical word by word to claim 26 of copending application.

As to claim 17, in instant application claim 17 is identical word by word to claim 27 of copending application.

As to claim 18, in instant application claim 18 is identical word by word to claim 28 of copending application.

As to claim 19, in instant application claim 19 is identical word by word to claim 29 of copending application.

As to claim 20, in instant application claim 20 is identical word by word to claim 30 of copending application.

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 11-14 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 18-21 of copending Application No. 09/960228. Although the conflicting claims are not identical, they are not patentably distinct from each other because, claim 11 of instant application in preamble calls for a method of verifying the authenticity of media, wherein authentic media comprises a digital watermark embedded in visual design formed by pits in the media and claim 18 of the copending application in preamble calls for a method

involving media comprising a digital watermark formed by pit placement in the media which are not identical, however the body of both claims are identical and all positive limitations are the same as each other, and "a digital watermark embedded in a visual design" as recited in instant application's claim does not limit the claim since the body of the claim following the preamble is self contained description of the structure and does not depend on the preamble for completeness.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry Choobin whose telephone number is 703-306-5787. The examiner can normally be reached on M-F 7:30 AM to 18:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Barry Choobin
October 21, 2004